

CLAIMS

What is claimed is:

1 1. An adhesive suitable to provide a bond between components, comprising:
2 an adhering material suitable for holding a first surface and a second surface in
3 contact; and
4 a plurality of items disposed in the adhering material, the plurality of items
5 having electromagnetic capability (EMC) shielding characteristics.

sub a1 2. The adhesive as described in claim 1, wherein an item of the plurality of items
includes at least one of ceramic ferromagnetic material and magnetic shielding
alloy.

3. The adhesive as described in claim 2, wherein the ceramic ferromagnetic
material includes ferrite.

sub a2 4. The adhesive as described in claim 1, wherein a quantity of the plurality of
items disposed in the adhering material is sufficient to provide EMC shielding
between the first surface and the second surface.

5. The adhesive as described in claim 1, wherein the first surface is included on an
integrated circuit and the second surface is included on a heat sink.

6. The adhesive as described in claim 1, wherein items of the plurality of items are
shaped to include at least one of a disk, sliver, hexagonal, triangular,
parallelogram, oval, diamond, polyhedral and polymorphic.

7. The adhesive as described in claim 1, wherein an item of the plurality of items

2 is formed wherein a longest dimension of the item is at least one of equal to and
3 less than one-half of a distance between the first surface and the second surface.

1 8. The adhesive as described in claim 7, wherein an item of the plurality of items
2 is formed wherein a longest dimension of the item is at least one of equal to and
3 greater than one-quarter of a distance between the first surface and the second
4 surface.

1 9. The adhesive as described in claim 7, wherein an item of the plurality of items
2 is formed wherein a longest dimension of the item is at least one of equal to and
3 greater than one-quarter of a distance between the first surface and the second
4 surface.

1 ~~10. The adhesive as described in claim 1, wherein an item of the plurality of items~~
2 ~~is formed wherein a smallest dimension of the item is at least one of equal to~~
3 ~~and less than one-tenth of a distance between the first surface and the second~~
4 ~~surface.~~

1 11. The adhesive as described in claim 1, wherein an item of the plurality of items
2 is formed wherein a midpoint width of the item is at least one of equal to and
3 less than one-quarter of a distance between the first surface and the second
4 surface.

1 12. An electrical system, comprising:
2 a first electrical component suitable for providing a function, the first electrical
3 component including a first surface;
4 a second component suitable for providing a function, the second component
5 including a second surface;
6 an adhering material suitable for holding the first surface of the first electrical
7 component and a second surface of the second component in contact; and
8 a plurality of items disposed in the adhering material, the plurality of items
9 having electromagnetic capability (EMC) shielding characteristics.

sub 94 1 13. The electrical system as described in claim 12, wherein an item of the plurality
2 of items includes at least one of ceramic ferromagnetic material and magnetic
3 shielding alloy.

1 14. The electrical system as described in claim 13, wherein the ceramic
2 ferromagnetic material includes ferrite.

sub 95 1 15. The electrical system as described in claim 12, wherein a quantity of the
2 plurality of items disposed in the adhering material is sufficient to provide EMC
3 shielding between the first electrical component and the heat sink.

1 16. The electrical system as described in claim 12, wherein the first electrical
2 component is an integrated circuit and the second component is a heat sink.

1 17. The electrical system as described in claim 12, wherein items of the plurality of
2 items are shaped to include at least one of a disk, sliver, hexagonal, triangular,
3 parallelogram, oval, diamond, polyhedral and polymorphic.

1 18. The electrical system as described in claim 12, wherein an item of the plurality
2 of items is formed wherein a longest dimension of the item is at least one of
3 equal to and less than one-half of a distance between the first surface and the
4 second surface.

1 19. The electrical system as described in claim 18, wherein an item of the plurality
2 of items is formed wherein a longest dimension of the item is at least one of
3 equal to and greater than one-quarter of a distance between the first surface and
4 the second surface.

1 20. The electrical system as described in claim 18, wherein an item of the plurality
2 of items is formed wherein a longest dimension of the item is at least one of
3 equal to and greater than one-tenth of a distance between the first surface and
4 the second surface.

1 21. The electrical system as described in claim 12, wherein an item of the plurality
2 of items is formed wherein a smallest dimension of the item is at least one of
3 equal to and less than one-tenth of a distance between the first surface and the
4 second surface.

1 22. The electrical system as described in claim 12, wherein an item of the plurality
2 of items is formed wherein a midpoint width of the item is at least one of equal
3 to and less than one-quarter of a distance between the first surface and the
4 second surface.

1 23. An electrical system, comprising:
2 a first electrical component suitable for providing a function, the electrical
3 component including a first surface;
4 a second component including a second surface;
5 a carrier material disposed between the first electrical component and the second
6 component; and
7 a plurality of items disposed in the carrier material, the plurality of items having
8 electromagnetic capability (EMC) shielding characteristics.

1 24. The electrical system as described in claim 23, wherein the plurality of items are
2 formed having a length between 3 microns and 1 millimeter.

1 25. The electrical system as described in claim 23, wherein the carrier material is
2 thermally conductive.